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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/427,260	10/25/1999	FARHAD KHOSRAVI	239/227	2937

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EXAMINER

PELLEGRINO, BRIAN E

ART UNIT	PAPER NUMBER
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3738

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/427,260

Applicant(s)

Khosravi et al.

Examiner

Brian Pellegrino

Art Unit

3738



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 25, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-16, 18-31, 33-40, 42-45, and 51-57 is/are pending in the application.
- 4a) Of the above, claim(s) 11-14, 18, 19, and 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 15, 16, 20-22, 29-31, 33-40, 42-45, and 51-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Oct 25, 1999 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 3738

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/1/02 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment of a stent with a coiled sheet of expandable wing-like elements having a plurality of locking elements must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Objections

3. Claim 40 is objected to because of the following informalities: the claim depends from a canceled claim. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 3738

Claims 1-3,5-10,31,33-40,42,51-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Fogarty et al. (5800520). Fig. 9A shows a stent with a plurality of stretchable elements biased to expand from a contracted condition or are in an unstretched condition. Fig. 9B illustrates the stretchable elements in the stretched condition. Fogarty et al. disclose the stent is formed from a coiled-up sheet having overlapping inner and outer longitudinal sections, that is unrollable to an enlarged condition, col. 5, lines 4-11. Fogarty also discloses the sheet is made of a shape memory material, i.e. Nitinol, col. 6, lines 17-21. The sheet should be cooled at about 25° C for martensitic transformation and heated to about body temperature for austenitic transformation, col. 6, lines 23-29. Fogarty additionally discloses the stretchable elements formed in the material is done by etching or laser cutting, col. 8, lines 20-22. Fogarty discloses that the stretchable elements are plastically deformed and use heat treating to program a stretched shape into the material, col. 6, lines 40-44. Fogarty also discloses the method of constraining the stent on a delivery device, col. 6, lines 35-38.

Claim Rejections - 35 U.S.C. § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 15,16,20-22,43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogarty et al. '520 in view of Khosravi et al. (5441515). Fogarty is explained supra. However, Fogarty does not disclose a plurality of locking elements along an edge of the sheet. Khosravi et al. also discloses locking elements for engaging openings in the outer longitudinal section, Figs.

Art Unit: 3738

10,11, see also col. 4, lines 56-68. It would have been obvious to one of ordinary skill in the art to use locking elements along an edge of a sheet as taught by Khosravi in the stent of Fogarty in order to prevent the stent from unexpanding once deployed.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogarty et al. '520 in view of Khosravi et al. '515 as applied to claim 16 above, and further in view of Gray et al. '406. Fogarty as modified by Khosravi is explained supra. However, Fogarty in view of Khosravi do not disclose the stretchable elements being formed from a pair of wing-like elements. Gray is explained supra. It would have been obvious to one of ordinary skill in the art to use wing-like elements to form the stretchable cells as taught by Gray et al. in the stent of Fogarty et al. as modified by Khosravi such that there is greater flexibility in the stent for more tortuous vessels.

Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogarty et al. '520 in view of Burmeister et al. (WO 95/31945). Fogarty is explained supra. However, Fogarty does not disclose using a tubular sheath to hold the coiled sheet shape memory material in a contracted state. Burmeister et al. teach shape memory stents can be constrained on a catheter within a sheath, page 8, lines 8-19. The stent inherently would engage the vessel wall once released from the sheath. It would have been obvious to one of ordinary skill in the art to use a sheath in the method for deploying the stent as taught by Burmeister et al. with the stent of Fogarty et al. as this prevents the stent from prematurely expanding until the sheath is removed.

Art Unit: 3738

Claims 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogarty et al. '520 in view of Gray et al. (5895406). Fogarty is explained supra. However, Fogarty does not disclose the stretchable cells formed from a pair of wing-like elements. Gray et al. (Fig. 2) show a stent cell with wing-like shape and Fig. 6 shows the longitudinal adjacent cells are connected to one another at tips of opposing wing-like elements. It would have been obvious to one of ordinary skill in the art to use wing-like elements to form the stretchable cells as taught by Gray et al. in the stent of Fogarty et al. in order to provide greater flexibility.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 8-10, 15,16, 20, 51, 52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4-9, 11, 13 of U.S. Patent No. 6290720. Although the conflicting claims are not identical, they are not patentably

Art Unit: 3738

distinct from each other because the claims are similar in scope describing a coiled sheet with overlapping inner and outer portions having "locking elements" and "expandable elements".

Response to Amendment

7. The reply filed on 4/1/02 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): Applicant failed to address the drawing objection and point out where the support is for the limitations in the claims. See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is being given a chance to respond in the subsequent amendment. Regarding the double patenting rejection, it is noted that applicant intended to submit a terminal disclaimer, however, it was missing from the amendment.
8. Applicant's arguments with respect to claims 1,16,31,44,51,55 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Pellegrino whose telephone number is (703) 306-5899. The examiner can normally be reached on Monday-Thursday from 8am to 5:30pm. The examiner can also be reached on alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott, can be reached on (703) 308-2111. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-2708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Brian E. Pellegrino

TC 3700, AU 3738

Brian E. Pellegrino


Bruce Snow
Primary Examiner